

Derev. 55087

# Work Order ID 54161

December 1, 2009 3:04:25 PM



Page 1

Item ID: D117-762-041

Accept



Setup Start



Revision ID: A

Stop



Item Name: Replacement Skidtube

Start Date: 02/12/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/12/2009 Req'd Qty: 1.00

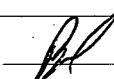


Customer:

Reference:

Approvals:

Process Plan:



Date: 09-12-1

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr	Revision Nbr
D3582	Rev A

100



DOCUMENT CONTROL

DC

Document Control:

Memo

Photocopy bluefile & type labels per PPP D117-762-041 CHG001

0.00

N/A DK

110



Skidtubes:

Skidtubes

Memo

1-Determine square end of tube and deburr  
2-Drill #30 pilot holes using DT8678.  
3- open holes to 5/16"

0.00

Y DP

9-12-2

120



BENDING MACHINE - SKIDTUBES

CNC Bend 1

CNC Delta 100 Bender

Memo

Bend tube as per program D3582 on CNC Bender and Dwg D3582. Use 5/16" locator pin on buggy "A".

0.00

DP  
9-12-2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng.	Approval QC Inspector
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NOTE: Date & initial all entries



W/O:		WORK ORDER CHANGES					
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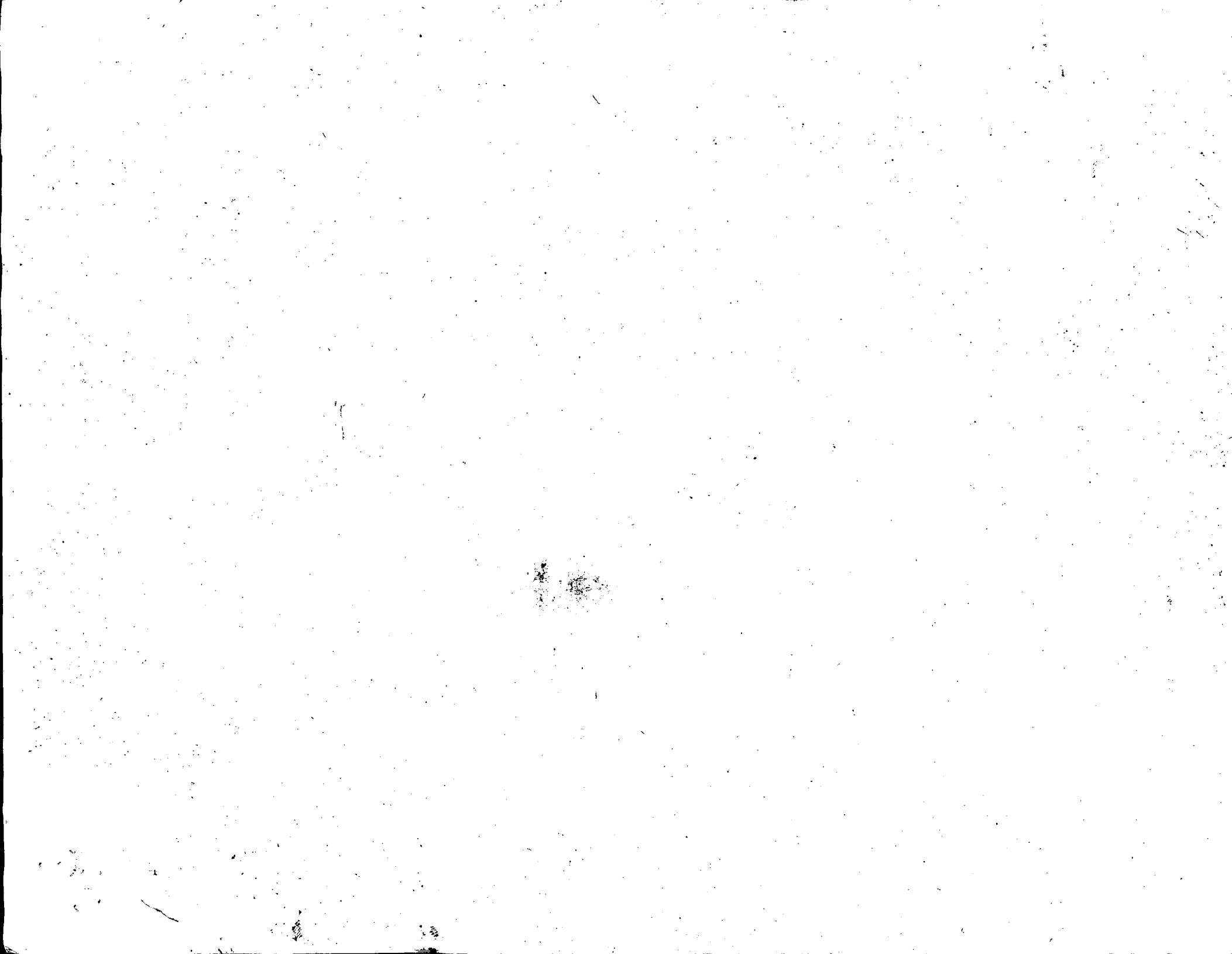
B54161

For seg 130: 109/12/03

- 1-Cut Fwd end of the tube using DT8185
- 2-Cut Aft end using DT8185
- 3-Deburr ends
- 4-Drill Aft Cap holes using DT8678 \*\*\*DO NOT OPEN AFT CAP HOLE\*\*\*
- 5-Locate DT 8973 & Drill Ground wire hole on top of Tube.
- 6-Install 3/16 cleco in Ground wire hole ,then drill all X-Bolt holes using 3/16" drill.
- 7-Drill pilot holes for wearplates using DT8974
- 8-Open wearplate holes to  $\varnothing 19/64"$  (0.297") as per Dwg D3582.
- 9- open ground wear holes to 0.391" as per section B-B
- 10-Open Aft Cap holes using .209" drill.
- 11-Drill pilot holes for section D-D and E-E. Holes must be laid out by hand. Mark out Center line and make sure that 6.65 and 5.906 measurements are respected. Double check before drilling, do not open holes to finish size.

DD

9-12-7



**Work Order ID 54161**

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Item ID: D117-762-041

Accept



Setup Start



Revision ID: A

Stop



Item Name: Replacement Skidtube

Start Date: 02/12/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 16/12/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

QC5- Inspect part completeness to step on W/O

0.00

2009/12/02

0.00



QC

Memo

Quality Control

170

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

160

10/12/18

180

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1

26/09/18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Required Date: 16/12/2009 Req'd Qty: 1.00



Customer:

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Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

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DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

190



Skidtubes

0.00

Skidtubes

Memo

0.00

1-Open X-Bolt holes to .750"(4Places) as per Dwg D3582, section B-B  
 2-Counter Sink X-BOLT holes as per Dwg D3582  
 3-Deburr and blow out chips from inside of tube.  
 4-Bond web as per Dwg D3582 & QSI 015  
 A/R 241 Sike Flex Batch: M112395

M 9/12/09

200



QC10- Inspect visual per QSI004- ground welds

0.00

5) Weld per due x-bolt  
 6) grind flush  
 AR 09/12/09  
 M112860

DP 9-12-9

QC

Memo

0.00

=&gt; 9/12/09

Quality Control

210



QC5- Inspect part completeness to step on W/O

0.00

=&gt; 9/12/09

QC

Memo

0.00

Quality Control

(+) f

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Required Date: 16/12/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	QC21- Final Inspection - Work Order Release	0.00							10/01/06 JH
QC	Memo	0.00							MF 10-01-05

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**Picklist Print**

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Work Order ID: 54161



Parent Item: D117-762-041RevA



Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2973RevA		Manufactured	No			190	Each	213.0000	2.0000			

Cross Bolt Spacer

WarehouseLocation

Main Warehouse

ST

Loc QtyLoc Code

14636

213

213

X

2

BE 09/12/09

D3662-3RevA



Manufactured

No

WarehouseLocation

Main Warehouse

ST

Loc QtyLoc Code

44456

34

34

X

1

BE 09/12/09

D3662-1RevA



Manufactured

No

WarehouseLocation

Main Warehouse

ST

Loc QtyLoc Code

39022

24

39585

6

39585

18

X

3

BE 09/12/09

Crossbolt Spacer

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**Picklist Print**

December 1, 2009 3:04:33 PM

Page 3

**Work Order ID:** 54161**Parent Item:** D117-762-041RevA**Parent Item Name:** Replacement Skidtube**Start Date:** 02/12/2009**Required Date:** 16/12/2009**Comments:****Start Qty:** 1.00**Required Qty:** 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
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ALS4-1032-130

Purchased

No

240

Each

2,957.000 36.0000



Insert

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

M111529

X36 M 09-12-15

ST

2957

110511

2957

ALS4-428-165

Purchased

No

240

Each

42.0000 2.0000



Inserts

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

FP

42

6989

42

X2 M 09-12-15

D2965RevB

Manufactured

No

250

Each

3.0000 1.0000



Cap, 105 Skidtube

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

352057

X1 M 09-12-15

FP4

2

50924

2

Main Warehouse

ST

1

43288

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**Picklist Print**

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December 1, 2009 3:04:33 PM

Work Order ID: 54161



Parent Item: D117-762-041RevA



Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3508-3RevC



Manufactured

No

250

Each

9.0000

1.0000



Wearplate

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

FP21

51386

9

9

x14109-12-15

D3508-9RevC



Manufactured

No

250

Each

3.0000

1.0000



Wearplate

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST

46596

3

3

x14109-12-15

D3558-3RevB



Manufactured

No

46596

250

Each

14.0000

1.0000



Gasket

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST

45661

14

51391

2

12

x14109-12-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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December 1, 2009 3:04:33 PM

Work Order ID: 54161



Parent Item: D117-762-041RevA



Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3558-9RevB Manufactured No 250 Each 15.0000 1.0000

Gasket

Warehouse

Location

Main Warehouse

ST

50928

Loc Qty

Loc Code

15

15

X1M1 04-12-15

D3558-11RevB Manufactured No

250 Each 13.0000 1.0000

Gasket

Warehouse

Location

Main Warehouse

ST

40399  
42254

Loc Qty

Loc Code

13

1

12

X1M1 04-12-15

D3558-13RevB Manufactured No

250 Each 10.0000 1.0000

Gasket

Warehouse

Location

Main Warehouse

ST

40400  
42255

Loc Qty

Loc Code

10

5

5

X1M1 04-12-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
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Required Date: 16/12/2009

Comments:

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Component Item ID / Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3508-11RevC		Manufactured	No			250	Each	7.0000	1.0000			

Wearplate

Warehouse

Location

Main Warehouse

ST

Loc Qty

7

40398

46880

Loc Code

X1 M 09-12-15

D3508-13RevC

Manufactured

No

250

Each

6.0000

1.0000

Wearplate

Warehouse

Location

Main Warehouse

ST

42252

Loc Qty

6

6

Loc Code

X1 M 09-12-15

D3492-051RevC

Manufactured

No

250

Each

20.0000

2.0000

Plug Assembly

Warehouse

Location

Main Warehouse

ST

44633

Loc Qty

20

20

Loc Code

X2 M 09-12-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

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Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3492-049RevC		Manufactured	No			250	Each	16.0000	2.0000			

Plug Assembly

## Warehouse

### Location

Main Warehouse

ST

16

40356

1

44632

15

D3492-053RevC



Manufactured

No

250

Each

2.0000

6.0000



XZ M1 09-12-15

Plug Assembly

## Warehouse

### Location

Main Warehouse

ST

2

44063

54641

2

6 M 09-12-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Required Date: 16/12/2009

Comments:

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Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD10L		Purchased		No		250	Each	5,463.000	2.0000			

Washer

WarehouseLocation

## Main Warehouse

ST	5463
101291	16
104885	153
105793	236
109632	280
110985	4778

Loc QtyLoc Code

XZ JU 09-12-15

AN3C4A



Purchased

No

250

Each

1,327.000 28.0000



BOLT

WarehouseLocation

## Main Warehouse

ST	1327
112314	13
112720	12
112724	3
112829	44
112991	39
113121	216
113226	1000

Loc QtyLoc Code

M 113359



XZ JU 09-12-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

December 1, 2009 3:04:33 PM

Page 9

Work Order ID: 54161



Parent Item: D117-762-041RevA



Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C5A		Purchased		No		250	Each	1,011.000	2.0000			

Bolt



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		

Main Warehouse

ST	1011	
111424	8	
111707	69	
112314	1	
12641	333	
113121	300	
113149	300	

xZM109-12-15

AN960JD416L



Purchased

No

250 Each 854.0000 2.0000



Washer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		

Main Warehouse

ST	854	
107008	54	
108138	4	
108583	42	
110153	354	
112492	400	

xZM109-12-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Page 10

December 1, 2009 3:04:33 PM

Work Order ID: 54161



Parent Item: D117-762-041RevA



Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

AN960C10L		Purchased		No		250	Each	1,844.000	28.0000			
-----------	--	-----------	--	----	--	-----	------	-----------	---------	--	--	--

washer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

OFFSHORE

FG	100	
----	-----	--

103585	100	
--------	-----	--

Main Warehouse

ST	1744	
----	------	--

112116	536	
--------	-----	--

112612	342	
--------	-----	--

112933	866	
--------	-----	--

X284U 09-12-15

AN4-4A

Purchased	No	
-----------	----	--

Bolt

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST	121	
----	-----	--

101291	3	
--------	---	--

106918	1	
--------	---	--

108138	60	
--------	----	--

111295	57	
--------	----	--

X284U 09-12-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Picklist Print**

Page 11

December 1, 2009 3:04:33 PM

Work Order ID: 54161



Parent Item: D117-762-041RevA



Parent Item Name: Replacement Skidtube

Start Date: 02/12/2009

Required Date: 16/12/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

NAS1611-012



Purchased

No

250

Each

62.0000

6.0000



O-RING

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST

108673

NAS1611-015



Purchased

No

250

Each

22.0000

2.0000



O-RING

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST

107178

NAS1611-016



Purchased

No

250

Each

69.0000

2.0000



O-RING

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST

107178

112492

X2



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

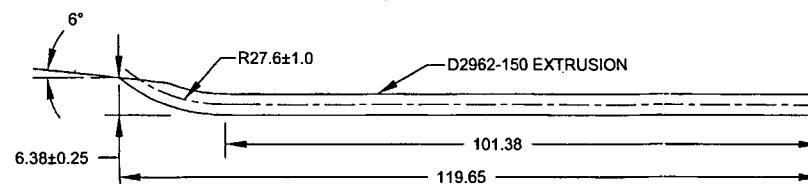
8 7 6 5 4 3 2 1

**PARTS LIST FOR D3582-041 SKIDTUBE ASSEMBLY**

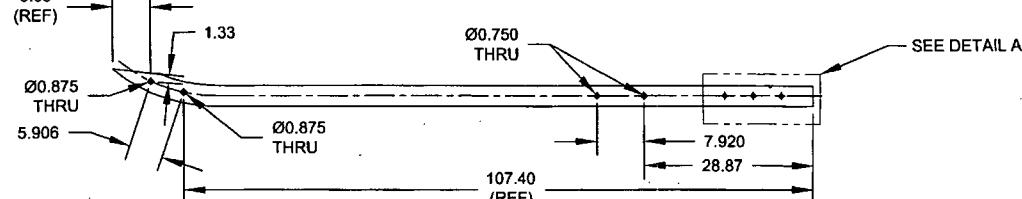
Qty	Part Number	Description
X	D3582-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2964	CAP
1	D2965	CAP
1	D2971	CROSS BOLT SPACER
2	D2973	CROSS BOLT SPACER
2	D3492-049	PLUG ASSEMBLY
2	D3492-051	PLUG ASSEMBLY
6	D3492-053	PLUG ASSEMBLY
1	D3508-3	WEARPLATE
1	D3508-9	WEARPLATE
1	D3508-11	WEARPLATE
1	D3508-13	WEARPLATE
1	D3558-3	GASKET
1	D3558-9	GASKET
1	D3558-11	GASKET
1	D3558-13	GASKET
1	D3584-1	WEB
3	D3662-1	CROSS BOLT SPACER
1	D3662-3	CROSS BOLT SPACER
36	AELS-1032-130	INSERT
2	ALST-42B-165	INSERT
28	AN3C4A	BOLT
2	AN3-5A	BOLT
2	AN4-4A	BOLT
28	AN960C10L	WASHER
2	AN960JD10L	WASHER
2	AN960JD416L	WASHER

**GENERAL NOTES:**

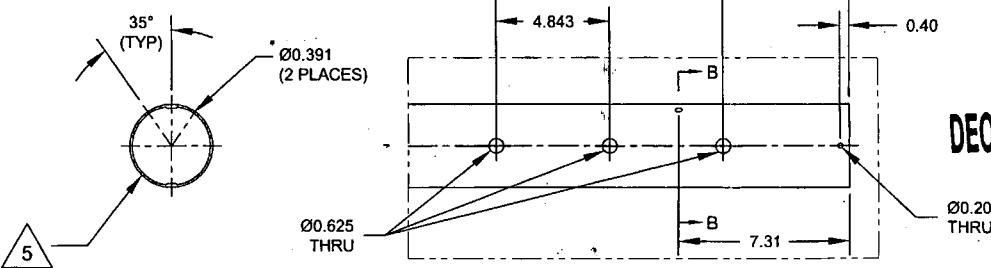
- 1) ALL DIMENSIONS ARE IN INCHES
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) WELDING TO BE DONE PER DART QSI 004.
- 4) INSERT D3584-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- 5) USE DART DRILL TEMPLATE DT8900 TO LOCATE AND DRILL Ø0.297 HOLES (36 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION G-G (36 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/291.
- 6) DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED LOCATIONS.
- 7) FINISH:
  - A) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3584-1 WEB.
  - B) POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3.
  - C) ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI 005 4.4.



**D3582-1 BENDING AND CUTTING DETAIL**



**D3582-1 DRILLING DETAIL**



**SECTION B-B**  
SCALE 1:5

**DETAIL A**  
SCALE 1:5

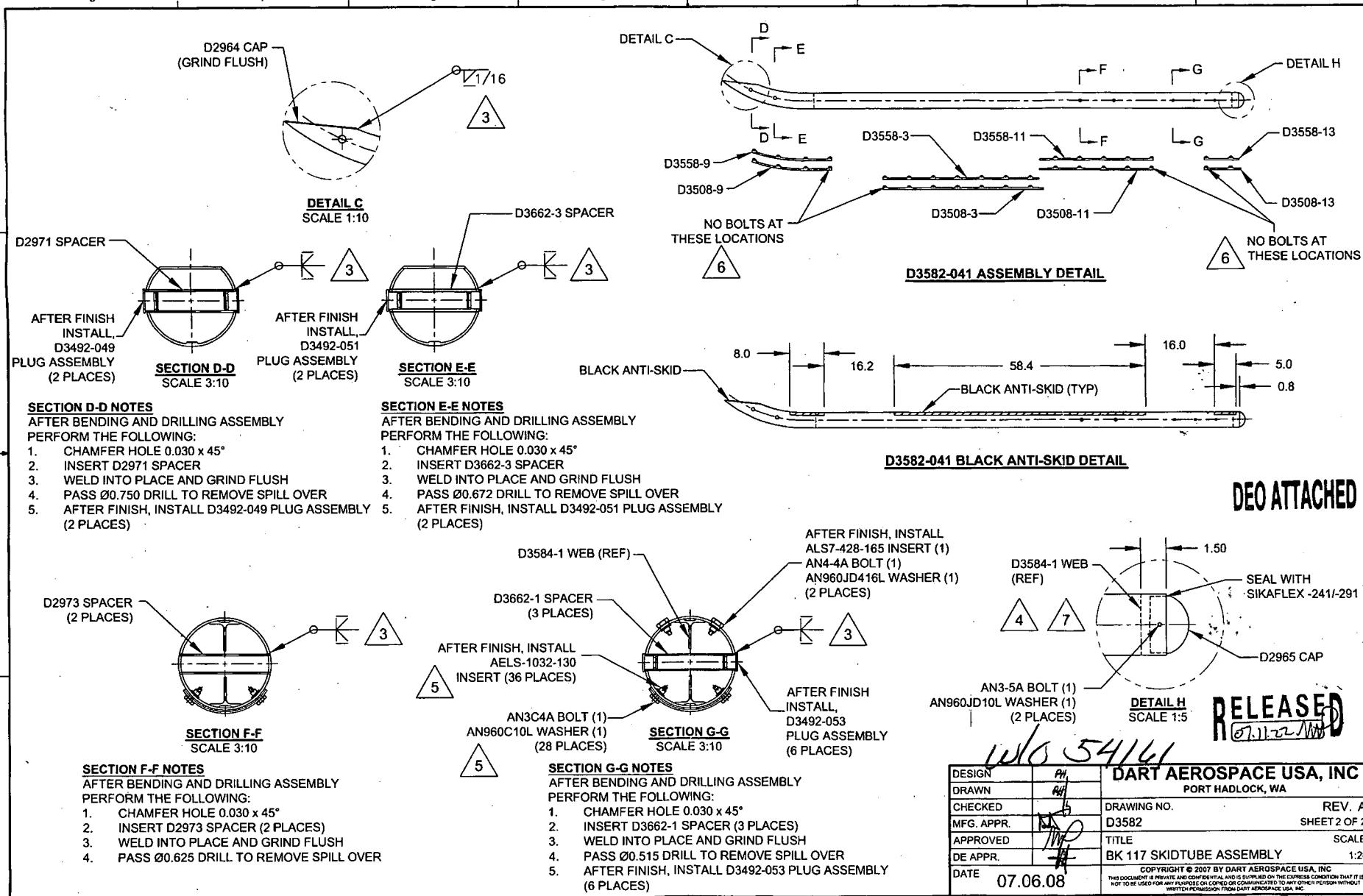
**DEO ATTACHED**

**RELEASED**  
07-11-22 /M

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORIGIN  
NO. 54161  
B90912-1

A	NEW ISSUE	PH	07.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	PH		
CHECKED			
MFG. APPR.	MA	DRAWING NO.	REV. A
APPROVED	MA	D3582	SHEET 1 OF 2
DE APPR.	MA	TITLE	SCALE
DATE	07.06.08	BK 117 SKIDTUBE ASSEMBLY	1:20

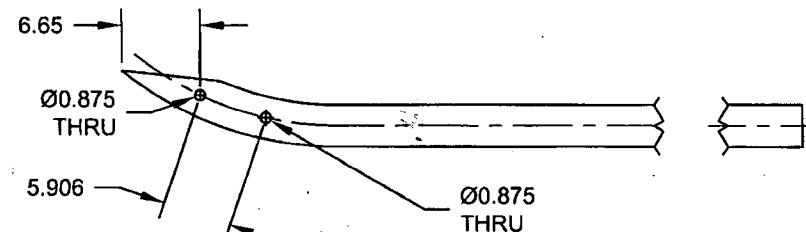
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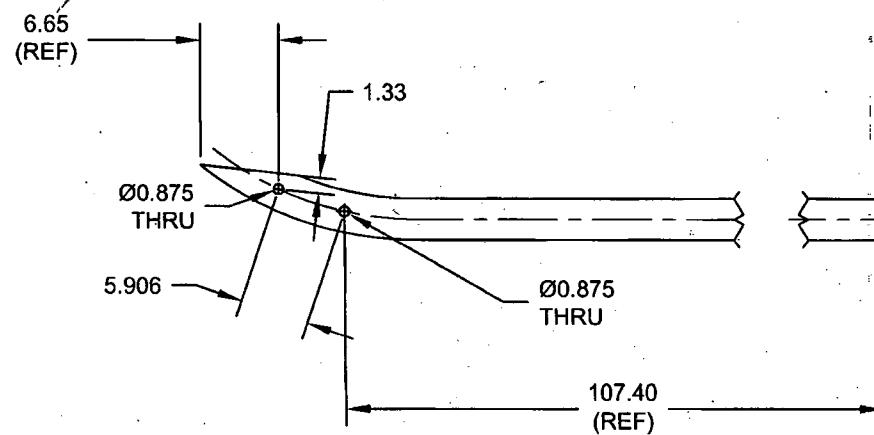
DRAWING NO. D3582	TITLE BK 117 SKIDTUBE ASSEMBLY	REV. A	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3582-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>RE</i>	CHECKED <i>RE</i>	MFG. APPR. <i>RE</i>	APPROVED	<i>MD</i>	DE APPR. <i>RE</i>	
DATE 09.04.06	DATE 04.04.06	DATE 09.04.06	DATE 09.04.06	<i>19/04/06</i>	DATE 09.04.06	<i>WLO 54161</i>

FOR EASE OF MANUFACTURE AND TO ENSURE THE FIT OF BRISTOL WIRESTRIKE SKID GEAR DEFLECTOR:  
UPDATE DIMENSIONING OF 2 FWD HOLES ON SHEET 1 AS SHOWN

IS:



WAS:



**RELEASED**  
*09/04/12 RE*



NO. 220

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 54161  
Part number: D17-762-041  
Description: 17 skd tube  
Welding Process: Tig  Mig   
Base material: Aluminum  
Current: AC  DC

**TEST REQUIREMENTS AND RESULTS**

Visual: pass  fail   
Penetration: pass  fail

**UNACCEPTABLE**

Cracks: pass  fail   
Undercut: pass  fail   
Pin holes: pass  fail   
Overlap (cold lap): pass  fail   
Porosity (surface): pass  fail   
Coloration: pass  fail

Qualifier JD Date of Test Coupon 09/12/10

Welder Barclay Elliott Date of Test Coupon 09/12/10

The above named individual is qualified in accordance with AWS D17.1.2001 to weld